



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,039	06/23/2003	Robert Brockman	SB 1644	9522

7590 10/10/2006

I. Michael Bak-Boychuk
Attorney at Law
P.O. Box 32501
Long Beach, CA 90832

EXAMINER

LOPEZ, AMADEUS SEBASTIAN

ART UNIT	PAPER NUMBER
----------	--------------

3771

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/602,039	Applicant(s) BROCKMAN, ROBERT	
	Examiner Amadeus S. Lopez	Art Unit 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to because of the reasons stated in the notice of draftsperson's patent drawing review submitted. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief

description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-2, 4, 6-8, 10, and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6481019 to Diaz et al.

6. With regards to claim 1, what is taught and shown by Diaz et al. in Figs. 1-4 is an air filtration system including a helmet assembly useful to draw ambient air across a filter and convey same into a shrouded enclosure adjacent the face of a person comprising: a thin-walled headpiece (12) defined by a bowl (18) generally conformed to be worn on the head of said person and formed within a planar brim surface (20) extending eccentrically from the periphery thereof, the larger portion of said brim being disposed to extend in cantilever above said face of said person and including an opening therein (76); a thin-walled housing (20) including a peripheral edge conformed for a nested engagement receipt of the corresponding periphery of said brim to form a cavity there between (26), said housing (20) further including an aspiration vent (louver openings in piece 104) communicating into said cavity; filter means (94) deployed in said housing adjacent said aspiration vent for filtering said ambient air passing into the interior thereof (Col. 9, lines 64-67); an electrically powered fan (54) deployed within said cavity adjacent said opening in said brim for drawing ambient air across said filter means and through said cavity and for emitting said ambient air through said opening in said brim; What is not taught by Diaz et al. is having a plastic membrane skirt captured between the periphery of the brim and the peripheral edge of the housing to depend therefrom onto the body of the person. What is taught by Diaz et al. is "the user simply brings or rolls the head portion 92 of the gown 88 over the helmet assembly 12 and the user's body 16." After reviewing the specification, the examiner has concluded that the

applicant never establishes any criticality for mounting the peripheral skirt of the hood by capturing it between the periphery of the brim and the peripheral edge of the housing. Therefore it would have been an obvious matter of design choice to one of ordinary skill in the art at the time the invention was made to mount the peripheral membrane skirt in such a way or any other way that would provide stability and prevent the hood from becoming detached from the helmet assembly.

7. **With regards to claim 2**, what is taught and shown by Diaz et al. in Fig. 3 is a respiration hood assembly comprising a battery (71) mounted in said cavity (26) and connected for selective electrical excitation through pulse width modulation (PWM) of said electrically powered fan (Col. 7, lines 8-30; See Col. 14). "The controller 118 instructs a switch to selectively activate and deactivate the power supply 70 through PWM. This on/off scenario controls the RPMs of the fan 50."

8. **With regards to claim 4**, what is taught and shown by Diaz et al. in Fig. 2 and 7 is a respiration hood assembly comprising an aspiration vent including a shouldered periphery conformed to engage the periphery of a filter means (94) and a removable cover provided with louvered apertures therein.

9. **With regards to claim 6**, what is taught and shown by Diaz et al. in Fig. 8 and 9 is at least one portion (96) of the skirt proximate to the face of the person is transparent.

10. **With regards to claim 7**, what is taught and shown by Diaz et al. is a respiration hood useful to draw ambient air across a filter (Col. 3, lines 56-60) and to convey same into a shrouded enclosure (area in between user's face and hood) adjacent the face of a person comprising: a thin-walled headpiece including a bowl (18) generally conformed

to be worn on the head of a person formed within a planar brim surface (20) extending eccentrically from the periphery thereof, said brim being disposed to extend in cantilever above the face of the person and including an opening (76) therein; a thin-walled housing conformed for nested engaging retention of the corresponding periphery of said brim to form a cavity (26) there between, said housing further including an aspiration vent (104) communicating into said cavity; an air filter (94) deployed in said housing adjacent said aspiration vent (Col. 3, lines 56-60) communicating into said cavity (26); an air-filter (94) deployed in said housing adjacent the aspiration vent (104); an electrically powered fan (54) deployed within said cavity (26) adjacent said opening in said brim for drawing ambient air across said filter (94), through said cavity (26) and thereafter emitting same through said opening in said brim; What is not taught by Diaz et al. is having a plastic membrane skirt captured between the periphery of the brim and the peripheral edge of the housing to depend therefrom onto the body of the person. What is taught by Diaz et al. is "the user simply brings or rolls the head portion 92 of the gown 88 over the helmet assembly 12 and the user's body 16." After reviewing the specification, the examiner has concluded that the applicant never establishes any criticality for mounting the peripheral skirt of the hood by capturing it between the periphery of the brim and the peripheral edge of the housing. Therefore it would have been an obvious matter of design choice to one of ordinary skill in the art at the time the invention was made to mount the peripheral membrane skirt in such a way or any other way that would provide stability and prevent the hood from becoming detached from the helmet assembly.

11. **With regards to claim 8**, what is taught and shown by Diaz et al. in Fig. 2 and 7 is a respiration hood comprising an aspiration vent (104) that includes a shouldered periphery (28) conformed to engage the periphery of a removable cover provided with louvered apertures therein (104). What is not disclosed by Diaz et al. is that the shouldered periphery is conformed to engage the periphery of the filter. Diaz teaches that the "intake grid is contoured to the outer shell between the front section and the rear section of the base section to maximize an effective intake area for the filter medium (94) to filter air drawn into the scroll housing (which implies that the filter medium is either located underneath the inlet 64 or above the inlet underneath the cover 104). After reviewing the specification, the examiner has concluded that the applicant never establishes any criticality for placing the filter in such a way so that it's periphery conforms to engage the shouldered periphery of an aspiration vent. It would have been an obvious matter of design choice to one of ordinary skill in the art at the time the invention was made to place the filter either underneath or above the air inlet because both are effective locations for filtering off ambient air entering the respiratory mask through the inlet.

12. **With regards to claim 10**, what is taught and shown by Diaz et al. in Fig. 8 and 9 is at least one portion (96) of the skirt proximate to the face of the person is transparent.

13. **With regards to claim 13**, what is taught and shown by Diaz et al. in Fig. 1-3 is a generally hollow domed housing (20) provided with an aspiration aperture (slits in 104) communicating to the exterior thereof and a nested lower panel (18) releasably

engaged within the peripheral edge of said domed housing to form a cavity (26) there between, said lower panel including an opening (76) therein; an air filter (Col. 3, lines 56-60) deployed in said housing adjacent said aspiration vent; an electrically powered fan (54) deployed within said cavity (26) adjacent said opening (76) in said panel for drawing ambient air across said filter, through said cavity and thereafter emitting same through said opening (Col. 3, lines 19-28); What is not taught by Diaz et al. is having a flexible skirt captured between the periphery of said panel and said housing to form said shrouded enclosure. What is taught by Diaz et al. is "the user simply brings or rolls the head portion 92 of the gown 88 over the helmet assembly 12 and the user's body 16." After reviewing the specification, the examiner has concluded that the applicant never establishes any criticality for mounting the peripheral skirt of the hood by capturing it between the periphery of the brim and the peripheral edge of the housing. Therefore it would have been an obvious matter of design choice to one of ordinary skill in the art at the time the invention was made to mount the peripheral membrane skirt in such a way or any other way that would provide stability and prevent the hood from becoming detached from the helmet assembly.

14. **With regards to claim 14**, what is taught and shown by Diaz et al. in Fig. 9 is an attachment means that is inherently capable of being conformed for selective capture between said domed housing and said lower panel for releasable attachment of said hood in shrouding position. The mounting clips (114) are used to support and hold the faceplate 96 in place, and it would be capable of attaching the hood around the periphery of the helmet assembly.

15. **With regards to claim 15**, what is taught and shown by Diaz et al. in Figs. 2 and 7 is an aspiration vent (104) that includes a shouldered periphery (28) conformed to engage the periphery of the removable cover (104) provided with louvered apertures therein. What is not disclosed by Diaz et al. is that the shouldered periphery is conformed to engage the periphery of the filter. Diaz teaches that the "intake grid is contoured to the outer shell between the front section and the rear section of the base section to maximize an effective intake area for the filter medium (94) to filter air drawn into the scroll housing (which implies that the filter medium is either located underneath the inlet 64 or above the inlet underneath the cover 104). After reviewing the specification, the examiner has concluded that the applicant never establishes any criticality for placing the filter in such a way so that it's periphery conforms to engage the shouldered periphery of an aspiration vent. It would have been an obvious matter of design choice to one of ordinary skill in the art at the time the invention was made to place the filter either underneath or above the air inlet because both are effective locations for filtering off ambient air entering the respiratory mask through the inlet.

16. **Claims 3, 5, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6481019 to Diaz et al. in view of U.S. Patent No. 4793343 to Cummins, Jr. et al.**

17. **With regards to claim 3** and what is taught and shown by Diaz et al. in Figs. 1-3 and 8 is a respiration hood assembly that embodies the claimed invention including electrical means deployed across said battery (70 and 71). What is not disclosed by

Diaz et al. is the respiration hood conformed for electrical connection to an alternative source of electrical power. What is taught by Cummins, Jr. et al. is a respiratory heated face mask that is powered by a battery pack (14) carried by the user, but he also states that "if desired, current can be supplied from the electric system of a motor vehicle preferably through an appropriate connector plugged into a receptacle for a cigarette lighter, or from any other suitable power source. It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the respiration hood assembly as taught by Diaz et al. to conform the hood for electrical connection to an alternative source of electrical power as taught by Cummins, Jr. et al. because if the battery that powers the respiratory mask or hood runs out of power, then the fan will cease working, and hence the mask will no longer be of any utility for filtering air. If the mask is capable of being plugged into an alternative electrical power source, the mask will be able to be used despite not having any battery life.

18. **With regards to claim 5, 9, and 16**, what is taught and shown by Diaz et al. in Fig. 1-3 and 8 is a respiration hood assembly comprising a battery (71) mounted in said cavity (26) and connected for selective electrical excitation through pulse width modulation (PWM) of said electrically powered fan (Col. 7, lines 8-30; See Col. 14), and electrical connection means deployed across said battery (70 or 71). "The controller 118 instructs a switch to selectively activate and deactivate the power supply 70 through PWM. This on/off scenario controls the RPMs of the fan 50." What is not disclosed by Diaz et al. is the respiration hood conformed for electrical connection to an alternative

source of electrical power. What is taught by Cummins, Jr. et al. is a respiratory heated face mask that is powered by a battery pack (14) carried by the user, but he also states that "if desired, current can be supplied from the electric system of a motor vehicle preferably through an appropriate connector plugged into a receptacle for a cigarette lighter, or from any other suitable power source. It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the respiration hood assembly as taught by Diaz et al. to conform the hood for electrical connection to an alternative source of electrical power as taught by Cummins, Jr. et al. because if the battery that powers the respiratory mask or hood runs out of power, then the fan will cease working, and hence the mask will no longer be of any utility for filtering air. If the mask is capable of being plugged into an alternative electrical power source, the mask will be able to be used despite not having any battery life.

19. Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6481019 to Diaz et al. in view of U.S. Patent No. 6388813 to Wilson et al.

20. With regards to claims 11 and 17, what is taught and shown by Diaz et al. in Figs. 9 is a respiration hood assembly that embodies the claimed invention with the exception of a plurality of transparent panels releasably adhered in stacked alignment on the exterior of said skirt in opposition to the face of said person. What is taught by Wilson et al. is an optical stack of laminated removable lenses for face shields,

windows, and displays. In the abstract, Wilson teaches that "the stack of laminated transparent lenses consists of two alternating optically clear materials in intimate contact. The materials are plastic and adhesive... A tab portion is part of each lens and acts as an aid in peeling away the outermost lens after contamination of the lens layer during racing conditions. The lens stack can be mounted to the posts on the face shield of a racing helmet or laminated directly to a windshield." It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the respiration hood assembly taught by Diaz et al. to utilize a stack of clear adhesive lenses on the portion of the hood through which the user looks through as taught by Wilson et al. so that the user may simply peel off the outermost layer of the stacked lenses when they become dirty so that the hood or face shield may remain clean, clear, and allow the user to see through the lens without any obstructions.

21. Claims 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6481019 to Diaz et al. in view of U.S. Patent No. 6968842 to Truschel et al.

22. With regards to claims 12 and 18, what is taught and shown by Diaz et al. in Figs. 9 is a respiration hood assembly that embodies the claimed invention with the exception of the electrically powered fan including an electric motor provided with an electrically unshielded commutator. What is taught by Truschel et al. is a pressure support system that has a motor, a switching element that supplies power to motor windings, and a blower coupled to the motor. Also included in this pressure support

system is a commutator (34; Fig. 2A). Truschel state that "the rotational speed of the blower is provided to a commutator 34, which produces drive signals 20, having a pattern and frequency that is sufficient to enable a desired applied torque to be developed by motor 24 for enabling blower 26 to rotate at the speed necessary to produce a desired fluid pressure in patient circuit 4 (Col. 8, lines 49-54)." It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the motor (54) used by Diaz et al. in their respiration hood assembly to include a commutator as taught by Truschel et al. so that the motor operating the fan used in the apparatus may be able to be rotated at the desired speed to draw the exact amount of air necessary to be filtered and delivered to the user.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. US 5054480, US 5125402, US 5887281, and PG-Pub US 2003/0182710, and PG-Pub US 2003/0101505.

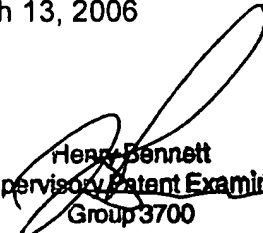
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amadeus S. Lopez whose telephone number is (571) 272-7937. The examiner can normally be reached on Mon-Fri 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (571) 272-4791. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amadeus Lopez 3/13/06
Amadeus S Lopez
Examiner
Art Unit 3743
March 13, 2006

ASL


Henry Bennett
Supervisory Patent Examiner
Group 3700